User's Manual

*el*Master project administrator

a product from

SIGMA
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CHAPTER 1

This chapter briefly describes how to install Oracle 7 Workgroup, both Server Release 7.2 and Server Release 7.3 in order for you to be able to install *el*Master project database.

The chapter also includes a description of the client part of Oracle 7.3 SQL*Net installation.

Required hardware

The server should have at least 64 MB RAM, but we recommend 128 MB RAM if you want the server to work fast and efficiently.

Check Oracle 7 Workgroup Server for their specific demands.

Required software

You must have the 7.2 release of Windows NT/95 ORACLE 7 Workgroup Server.

The operative system should be Windows NT server 3.51 service pack 3 or NT 4.0. We recommend using NT 4.0.

*el*Master installation overview

Below you can se a complete guide for installing *el*Master in your system. This is only an overview and will direct you to more detailed installation guides.

The overview is divided into two parts, server and client machines.

These guidelines are completed for NT 4.0.

Server

Work procedure:

1. Install an Oracle Workgroup server (see “Installation Oracle 7 Workgroup Server Release 7.2” on page 9, or “Installation Oracle 7 Workgroup Server Release 7.3” on page 11).
2. If you are installing Server Release 7.3 run the SQL Net Easy Configuration (see “SQL Net Client Installation” on page 14).
3. Install *el*Master project database by installing the *el*Master project administrator and select database.

Client

Work procedure:

1. Install AutoCAD 13 or 14.
2. Make sure that AutoCAD works correctly.
3. Install *el*Master design.
4. Make sure that *el*Master design works correctly.
5. Install *el*Master project.
6. If you are using Oracle 7.3 run the SQL Net Easy Configuration (see “SQL Net Client Installation” on page 14).

Installation Oracle 7 Workgroup Server Release 7.2

Every step in the installation program are described below:

1. Run SETUP.EXE. You will find this file on your ORACLE-CD.
2. Select English as language.
3. Select directory and type in your company name.
4. Select **OK** when you are asked if you should add ORANT/BIN to you path.

   This only happens if you haven't got Oracle installed on your NT machine before.
5. Reboot your machine so that the path ORANT/BIN is setup correctly.
6. Go through step one to three again.
7. Select **Selective Product install**.
8. Select the following programs:
   - Oracle installer
   - Oracle Database Administrations Tools
   - Oracle Server
   - Oracle Utilities
   - SQL*NET Named Pipes 1.1 Server
   - SQL*NET Named Pipes 1.1 Client
   - SQL-Plus 3.2
9. Select **OK** when asked about creating a new database.
10. Type in your Password: MANAGER
11. In the *Language* dialogue select **YES** for English.

12. Give the recommended values, listed below, in the dialog box. The computer name must be filled out. You will find it in the control panel under Network.
    - SYSTEM
    - MANAGER
    - MANAGER
    - “computer name”
13. Select SQL*NET SERVER.
14. If certain parts selected in step 8 don’t seem to be installed, install these parts again.
15. Run Oracle Administrator Toolbar.
16. Run Oracle Database Manager.
17. Select **Configure** if you want to change the settings for the Oracle database.
18. Select **Large 7.2**
19. Save as configure name “PROJECT”
20. Answer **OK** in every dialog box, which appears, and then return to the parameters.
    - Block buffers should be set to 1000.
    - Shared pool size should be set to 30000.
    - Open cursors should be set to 350.
    - Select **OK** and save with the same name.
21. Return to the beginning of the dialogs and press **Startup**.
22. Type in the Password: MANAGER.

    Server is up.
23. Run *el*Master project administrator setup program.

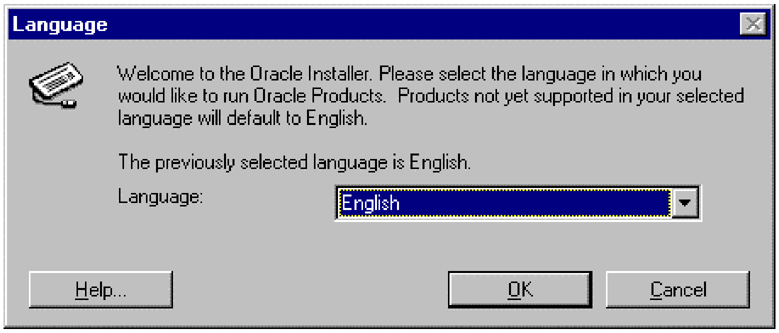
Installation Oracle 7 Workgroup Server Release 7.3

This section describes the installation of the Oracle7 Server software.

In case that you have an earlier version of Oracle already installed, some of the dialog boxes shown in this section may appear slightly different or will not appear at all.

Work procedure:

1. Start Windows NT and login locally as Windows NT user Administrator.
2. Insert the Oracle Workgroup Server Release 7.3 for NT into your CD-ROM drive and select the directory **<CD_ROM_DRIVE>:Setup** in the Explorer.
3. In the *Oracle Language* dialog select **English** and click **OK**.



Language

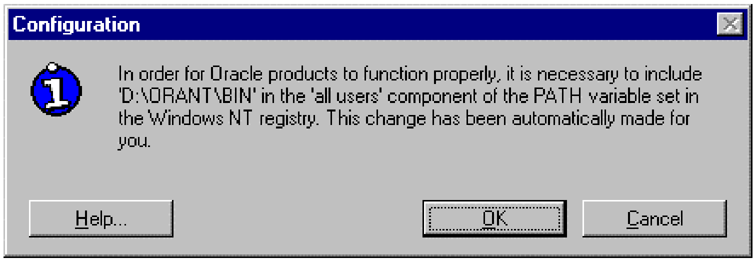
Welcome to the Oracle Installer. Please select the language in which you would like to run Oracle Products. Products not yet supported in your selected language will default to English.

The previously selected language is English.

Language: English

Figure 1. Language

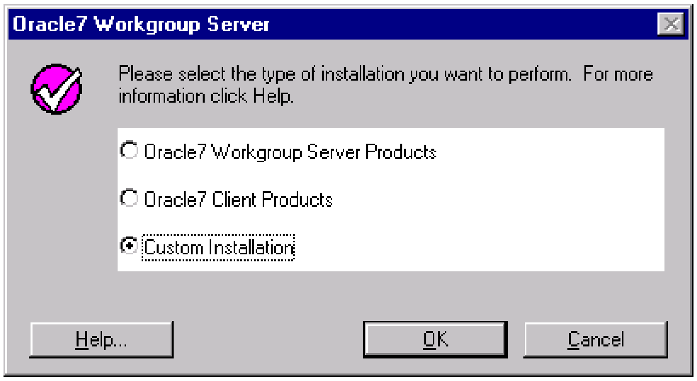
4. In the *Installations Setting* dialog specify your company name and the Oracle Home directory (for example d:\orant).
5. The *Configuration* dialog will update the **Path** variable setting in the registry (for example d:\orant\bin). Click **OK** to update it.


Configuration

In order for Oracle products to function properly, it is necessary to include 'D:\ORANT\BIN' in the 'all users' component of the PATH variable set in the Windows NT registry. This change has been automatically made for you.

Figure 2. Configuration

6. Select **Custom Installation**.


Oracle7 Workgroup Server

Please select the type of installation you want to perform. For more information click Help.

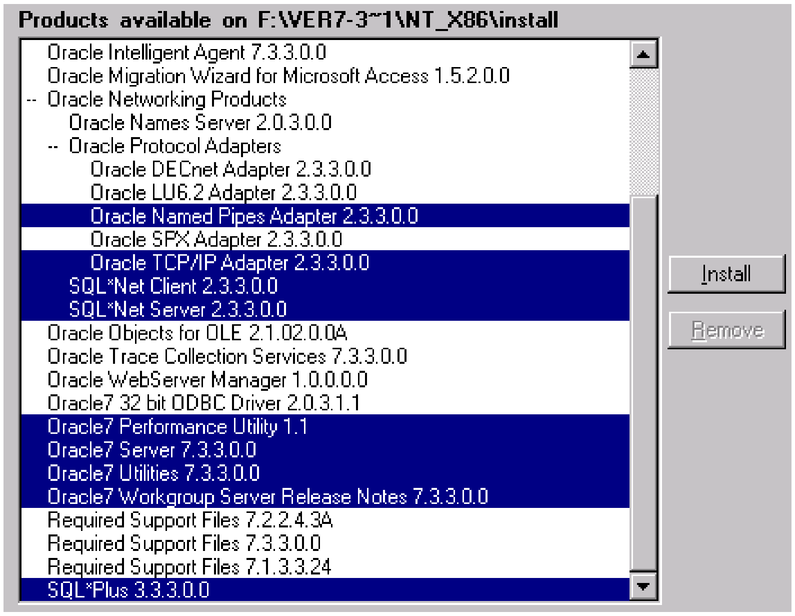
○ Oracle7 Workgroup Server Products

○ Oracle7 Client Products

● Custom Installation

Figure 3. Oracle 7 Workgroup Server

7. The *Software Asset Manager* window is displayed. Make the same selections as shown in Figure 4 and push the **install** button.



Products available on F:\VER7-3~1\NT_X86\install

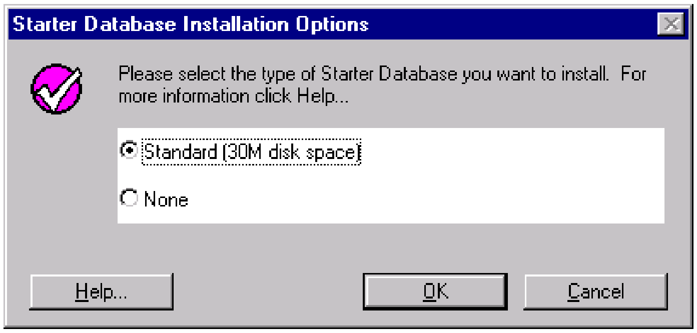
Oracle Intelligent Agent 7.3.3.0.0
Oracle Migration Wizard for Microsoft Access 1.5.2.0.0
-- Oracle Networking Products
  Oracle Names Server 2.0.3.0.0
  -- Oracle Protocol Adapters
    Oracle DECnet Adapter 2.3.3.0.0
    Oracle LU6.2 Adapter 2.3.3.0.0
    Oracle Named Pipes Adapter 2.3.3.0.0
    Oracle SPX Adapter 2.3.3.0.0
    Oracle TCP/IP Adapter 2.3.3.0.0
  SQL*Net Client 2.3.3.0.0
  SQL*Net Server 2.3.3.0.0
Oracle Objects for OLE 2.1.02.0.0A
Oracle Trace Collection Services 7.3.3.0.0
Oracle WebServer Manager 1.0.0.0.0
Oracle7 32 bit ODBC Driver 2.0.3.1.1
Oracle7 Performance Utility 1.1
Oracle7 Server 7.3.3.0.0
Oracle7 Utilities 7.3.3.0.0
Oracle7 Workgroup Server Release Notes 7.3.3.0.0
Required Support Files 7.2.2.4.3A
Required Support Files 7.3.3.0.0
Required Support Files 7.1.3.3.24
SQL*Plus 3.3.3.0.0

Figure 4. Software Asset Manager

8. Answer all the dialogs, which appears.

   The installation program will install the server.

9. In the *Starter Database Installation Options* **Dialog** select **Standard** and then click **OK**.



Starter Database Installation Options

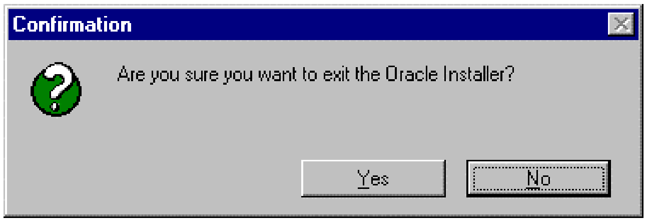
Please select the type of Starter Database you want to install. For more information click Help...

● Standard (30M disk space)
○ None

Figure 5. Starter Database Installation Option

10. In the *Software Asset Manager* Window click the **Exit** button.

11. In the *Confirnation* window, click **Yes** to exit the installer.



Are you sure you want to exit the Oracle Installer?

Figure 6. Confirmation

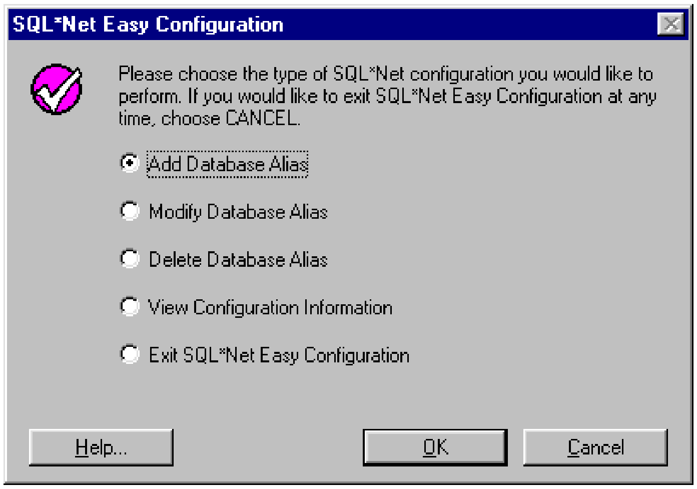
12. Look in the directory DATABASE. Here you should find a textfile named INITORCL.ORA. Edit this file in a text editor for example Notepad. Make sure that all variables are using large settings. Alter the following variables:
    - db_block_buffers = 1000
    - shared_pool_size = 30 000 000
    - open_cursors = 350

Installation is completed.

SQL Net Client Installation

This part will shortly describe how to make a SQL*NET Alias. In order for this to work you must have installed SQL*Net Server 2.3 on the Server and SQL*Net Client 2.3 on the client. These can be found on the Oracle Workgroup CD and on the Oracle client CD.

1. Start SQL Net Easy Configuration that can be found in your Oracle for NT Program Group.
2. Select **Add database Alias**, see Figure 7.


SQL*Net Easy Configuration

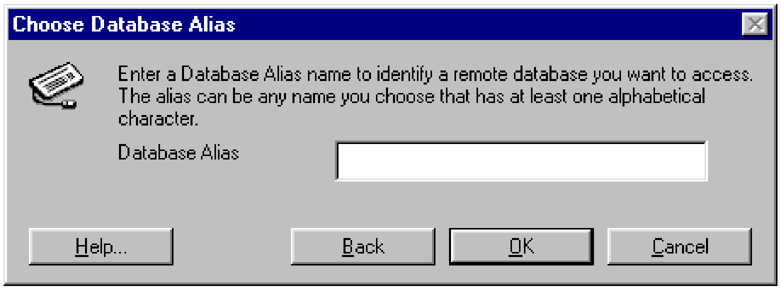
Please choose the type of SQL*Net configuration you would like to perform. If you would like to exit SQL*Net Easy Configuration at any time, choose CANCEL.

● Add Database Alias
○ Modify Database Alias
○ Delete Database Alias
○ View Configuration Information
○ Exit SQL*Net Easy Configuration

Figure 7. SQL Net Easy Configuration

3. If you have installed more than one Adapter a question will appear that asks which protocols should be used.

4. Enter the name of the Alias, see Figure 8. Decide one that all users should use, e.g. elmaster.


Choose Database Alias

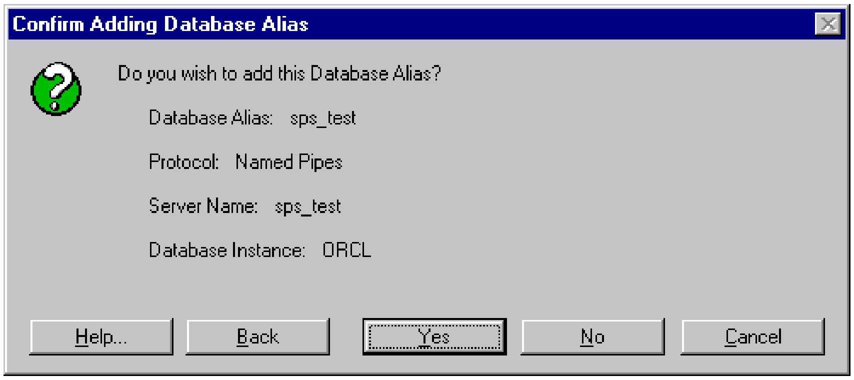
Enter a Database Alias name to identify a remote database you want to access. The alias can be any name you choose that has at least one alphabetical character.

Database Alias

Figure 8. Choose Database Alias

5. Enter the Server Name and the Instance if it is different than ORCL.

6. If the Alias looks correct press **Yes**, see Figure 9.


Confirm Adding Database Alias

Do you wish to add this Database Alias?

Database Alias: sps_test

Protocol: Named Pipes

Server Name: sps_test

Database Instance: ORCL

Figure 9. Confirm Adding Database Alias

Guidelines for alteration of default values

This section focuses on alterations that you should consider making after you have installed *el*Master project database. The default values are found in the *el*Master project administrator.

Variables

In the table below you can find the variables that you should consider changing.

Name	Consider
INSTALL_PREFIX	Check if this looks like the first four letters of the server or the SQL*NET Alias.
DOC_START_REV	Enter the start revision for documnents. If you want the first made revision after the creation to A you should set these varaible to – or somethingelse and set DOC_NEXT_REV to A
DOC_NEXT_REV	This is the second revision after the creation revision.

Name	Consider
CODES_SIG_TRANS	Enter the structure where you would like your signals to appear in. A is Function, B is Location
FT_STATUS	If you are using Interconnect or is planing to use it in a near future you should set this variable to true because then all the electrical connections are saved to the database.

Directory Synonyms

You should consider making synonyms to the server location where the drawing files should be created.

The report directory synonyms, PROJREPSYN and INTREPSYN, for *el*Master project and *el*Master interconnect should point directly to the directory containing the report files specified by the Report Functions.

Report Functions

The list that you see in the *Report Function* window is the available Report Functions. You can see that they are using a Directory Synonym and a file name. If you have your own settings of reports you should add some variants to the Report Functions so that you will be able to use them as well.

Users

You should create users for those who are going to use *el*Master Power Concept. Preferably you should use the same usernames and password as their NT user account.

NT specific guidelines

Here are some guidelines for the client NT machine.

Short date format

Short date format is the setting that can be found in the Control Panel, **Regional Settings** under the **Date** tab. The date format can be of any type that is valid for ORACLE. In the table below you can find ORACLE's date formats.

You can read more about ORACLE's date formats in ORACLE Workgroup Server manual.

Format	Description
-/	Date delimeter
DD	Day of month (1-31)
MM	Month (01-12; JAN = 01)
YYYY	4-digit year
YY	2 digit year

We recommend that you use YYYY, MM and DD in any combination or with any delimiter that you desire. For example International Standard Organisation (ISO) "YYYY-MM-DD" or English "DD/MM/YYYY".

The date format for this release are restricted to just a few NT 4.0 and Oracle combinations. There will be an improvement to next version.

Transfer of data to blocks

CHAPTER 2

This chapter describes how data from a database is transferred to blocks created in elMaster design.

The Transfer table

The relation between a database field and an attribute in a block is saved in the table MAPPING in the BLOCKLIB database in elMaster design.

For each block there is a set of records, which gives the relation between a database field and an attribute. If a block have several attributes, several records will be needed.

Records with the same name (field MAPLIST) belong together, and form a definition for a transfer list.

The name of the transfer list can either be the name of the block or an arbitrary name depending on to which functions it will be used.

Transfer of information to the title block

When a title block is inserted, information about the title block is saved in the drawing. The information can include the name of the title block and from which group and library the title block was selected.

This information is used when you want to find out which transfer list should be used, by means of that each title block in the table FORMAT in the BLOCKLIB database also have information of which transfer list should be used. In this case, the name of the transfer list is an arbitrary name.

The same transfer list can consequently be used for different title blocks as long as they have the same set of attributes.

The transfer of the information to the title block is performed at startup by the function (f:SetTitleBlockAttribute).

Transfer of information to the revision list

Information about the name of block that should be used as the revision list is saved in the drawing. This name is used to find which transfer list should be used. Since the revision list can consist of several rows, information of which field/fields should be used to sort the list is needed. This information is given by entering a figure in the field SORTORDER in the MAPPING table.

The transfer of the information to the revision list is performed by the function (c:cmdInsertAllRevFromDB).

Function to define keys

To be able to get unique database-records, information about which field should be used as keys and their values, is needed. For each table used, a key has to be defined. This definition is saved at startup in the following way:

(f:SetDocConfig <strTable> (List (List <strField1> <strValue1>) (List <strFieldn> <strValuen>)))

<strTable> is the name of the database table that is used. <strField1> and <strValue1> is the field-name and value that is used as keys.

Mapping database

Table definition

Name	Type	Size	Remark
MAPLIST	Text	50	Name of list
DB_CONNECT	Text	50	Data source name (currently not used)
ATTR_TAG	Text	50	Attribute tag in block
XDATA_TAG	Text	50	x-data name in block (currently not used)
DB_TABLE	Text	50	Database table
DB_FIELD	Text	255	Database field
DB_FIELD_AS	Text	255	Date-conversions
SORTORDER	Text	50	Sortorder

Example

MAPLIST	DB_CONNECT	ATTR_TAG	DB_TABLE	DB_FIELD	SORTORDER
Relist	EDDB	REV_IDX	DOTREVS	DOTDOC_REV	1
Relist	EDDB	REV_IDX_DATE	DOTREVS	REVDATE	
Relist	EDDB	REV_IDX_NOTE	DOTREVS	REVTEXT	
Relist	EDDB	REV_IDX_SIGN	DOTREVS	REVSIGN	
TYPE A	EDDB	DESIGNCHECK	DOTDOCS	SIGN3	
TYPE A	EDDB	DOC_CREATED_WEEK	DOTDOCS	DATE1	
TYPE A	EDDB	DOC_DESC1	DOTDOCS	DENOM1	
TYPE A	EDDB	DOC_DESC2	DOTDOCS	DENOM2	
TYPE A	EDDB	DOC_DESC3	DOTDOCS	DENOM3	
TYPE A	EDDB	DOC_DESC5	DOTDOCS	DENOM4	
TYPE A	EDDB	DOC_DESIGNER	DOTDOCS	SIGN1	
TYPE A	EDDB	DOC_FULL_FILE_NAME	DOTFORMS	FILENAME	
TYPE A	EDDB	DOC_NUMBER	DOTDOCS	KEYA01	

MAPLIST	DB_CONNECT	ATTR_TAG	DB_TABLE	DB_FIELD	SORTORDER
TYPE A	EDDB	DOC_PAGE	DOTDOCS	SHEETNOA	
TYPE A	EDDB	DOC_TYPE	DOTDOCS	FREE11	
TYPE A	EDDB	DRAWINGCHECK	DOTDOCS	SIGN2	
TYPE A	EDDB	LG_DESC_1	COTPROJS	PROJID	
TYPE A	EDDB	LG_DESC_2	COTPROJS	DENOM2	
TYPE A	EDDB	LG_NAME	COTPROJS	DENOM1	
TYPE A	EDDB	NEXTSHEET	DOTDOCS	SHEETNEXT	

Definitions

Terms	Definitions
Blocklib database	Database that holds information about blocks (symbols and title blocks)
Block	Object type in AutoCAD that can contain graphical objects and attributes.
Attribute	Object type in AutoCAD for storing text based information
Transfer list	A set of definitions for transering data from a generic database to a block in a drawing

Command Reference

CHAPTER 3

Add to Library

Access:

- Select **Add to Library** from the **Article-**menu.

Functional demands:

The *Articles* window must be active.

Description:

This function will add all the selected articles to an article library. A dialog will appear where you can select which library that you want to add the articles to.

See also:

- "Delete Article Library" on page 26.
- "Edit Article Library" on page 29.
- "New Article Library" on page 37.

Article Search

Access:

- See the top part of the *Article* window.

Functional demands:

The *Article* window must be active.

Description:

This function is the same as **Article search** in *el*Master project User Guide. The only addition is that you now will search for articles with reference to a standard. You select a standard at the top of the window and then you work with that standard, until you change it to a new one. You add and edit articles to that standard.

See also:

- “Article Search” in *el*Master project User Guide.

Change Password

Access:

- Select **Change Password** from the **File-**menu.

Functional requirements:

The *Users* window must be active.

Description:

This function opens a dialog in which you can change the selected users’ password.

Copy Standard

Access:

- Select **Copy Standard** from the **Edit**-menu.
- Shortcut: CTRL-C

Functional requirements:

The *Standard* window must be active.

Description:

This function will copy the current standard. You then give a name to the new standard. All the data in the old standard is copied to the new one, e.g. variables and articles.

Delete Article

Access:

- Select **Delete Article** from the **Edit**-menu.
- Click this button in the toolbar 🗑
- Shortcut: CTRL-D

Functional requirements:

The *Articles* window must be active.

Description:

When you use this function the selected article in the *Articles* window will be deleted, provided that it is not connected to an apparatus. To delete articles that are connected to an apparatus, you first have to remove the connection in *el*Master project.

An article can be deleted from any library, but it will only be deleted from the selected library. If you want to delete an article entirely, you have to delete it from the “*” library. It will then be removed from all libraries.

Delete Article Library

Access:

- Select **Delete Article Library** from the **Edit-**menu.
- Click this button in the toolbar 🗑
- Shortcut: CTRL-D

Functional requirements:
The *Article Library* window must be active.

Description:
This function will delete the active article library.

See also:

- “Add to Library” on page 23.
- “Edit Article Library” on page 29.
- “New Article Library” on page 37.

Delete Directory Synonym

Access:

- Select **Delete Directory Synonym** from the **Edit**-menu.
- Click this button in the toolbar 🗑
- Shortcut: CTRL-D

Functional requirements:
The *Directory synonym* window must be active.

Description:
This function will delete the selected directory synonym. It is important that this synonym is not used in any drawing.

Delete Report Function

Access:

- Select **Delete Report Function** from the **Edit-**menu.
- Click this button in the toolbar 🗑
- Shortcut: CTRL-D

Functional requirements:

The *Report Function* window must be active.

Description:

This function will delete the active report function. You should not delete the standard variant of the report function. If you do this, the system's ability to print standard reports is lost.

Delete User

Access:

- Select **Delete User** from the **Edit-**menu.
- Click this button in the toolbar 🗑
- Shortcut: CTRL-D

Functional requirements:

The *User* window must be active.

Description:

This function will delete the selected user from the list in the *Users* window. Make sure that the user that you delete is not using the database.

Delete Variable

Access:

- Select **Delete Variable** from the **Edit**-menu.
- Click this button in the toolbar 🗑
- Shortcut: CTRL-D

Functional requirements:

The *Variables* window must be active.

Description:

This function will delete the selected variable. You should not delete variables from the standard “%”. The standard “%” is an over arching designation of standards, i.e. it is valid for every standard. If you delete an article from the “%”-standard and from the “%”-project this could cause severe damage to the database.

Edit Article

Access:

- Select **Edit Article** from the **Edit**-menu.
- Click this button in the toolbar ab
- Shortcut: CTRL-E
- Double-click on the article that you want to edit.

Functional requirements:

The *Articles* window must be active.

Description:

When you use this function a dialog will appear, which shows the article that is active in the *Articles* window. You can edit all the fields in that article.

The article is unique in the database if the manufacture and the manufacture number differ from the other articles.

Edit Article Library

Access:

- Select **Edit Article Library** from the **Edit-**menu.
- Click this button in the toolbar
- Shortcut: CTRL-E

Functional requirements:

The *Article Library* must be active.

Description:

This function displays a dialog containing descriptions about the current article library. You can edit both fields.

See also:

- “Add to Library” on page 23.
- “Delete Article Library” on page 26.
- “New Article Library” on page 37.

Edit Article Terminals/Cores

Access:

- Select **Edit Article Terminals/Cores** from the **Article-**menu.
- Click this button in the toolbar

Functional requirements:

The *Article* window must be active.

Description:
With this function you can edit, create new, and delete terminals or cores for the active article.

When you make cable cores for a cable article you should be aware of that the core numbers that you enter are those that your cable will get. The sequence determines the order the cores are going to be picked from *el*Master interconnect when assigning a cable.

Edit Directory Synonym

Access:

- Select **Edit Directory Synonym** from the **Edit**-menu
- Click this button in the toolbar ab
- Shortcut: CTRL-E
- Double-click on the directory synonym that you want to edit.

Functional requirements:
The *Directory Synonym* window must be active.

Description:
When you use this function a dialog will appear showing the directory synonym that is active in the window. You can edit all the fields.

See also:

- “New Directory Synonym” on page 37.

Edit Report Function

Access:

- Select **Edit Report Function** from the **Edit**-menu.
- Click this button in the toolbar
- Shortcut: CTRL-E

Functional requirements:

The *Report Function* window must be active.

Description:

With this function you can edit report functions. You can change *Report Denomination*, *Directory Synonym* and *Report File*.

If you have own report files that you want to print, do not edit the standard report and change the file name, make a new variant instead.

When a new variant for a report function is made it will be visible for report documents of that type. For example if you make a new report file that has a company logo for the Bubble Company. The file is named BUBBLE.RPT and it is an apparatus list file. You can make a new "APPLIST" variant called "bubble". This variant is showed in the *Document Data* dialog and you can switch between variant "standard" and "bubble" and the print out will change.

Edit Standard

Access:

- Select **Edit Standard** from the **Edit**-menu.
- Click this button in the toolbar
- Shortcut: CTRL-E

Functional requirements:

The *Standard* window must be active.

Description:
This function will display a dialog with the current standard. You can edit any field of the current standard in the dialog.

Edit Variable

Access:

- Select **Edit Variable** from the **Edit**-menu.
- Click this button in the toolbar ab
- Shortcut: CTRL-E
- Double-click on the variable that you want to edit.

Functional requirements:
The *Variables* window must be active.

Description:
This function will edit the selected variable. You can edit any kind of variable.

See also:

- Appendix B for an index over variables.

Exit

Access:

- Select **Exit** from the **File**-menu.
- Shortcut: CTRL-X

Description:
This function will exit *el*Master project administrator. You must confirm if you want to exit.

Export

Access:

- Select **Export** from the **Article-**menu.

Functional requirements:

The *Article* window must be active.

Description:

This function will export articles to a file. The articles that are shown in the *Article* window are the articles that will be exported. The file will be of the semicolon delimited text type, see “Import Article”. The complete article will be exported, including terminal/cores.

See also:

- “Import Article” on page 33.

Import Article

Access:

- Select **Import** from the **Articles-**menu.

Functional requirements:

The *Articles* window must be active.

Description:

This function imports a text file containing articles. When you use this function you must select which import type your text file has. There are three different import types. The different types are tab-delimited text, semicolon delimited text and semicolon and quotation delimited text. They are described in the following table.

File formats:

Import type	Row example of text file
Tab delimited text	field1 field2
Semicolon delimited text	field1;field2;
Semicolon and quotation delimited text	"field1";"field2"

In the *Open* dialog you can select which text file you want to import. The articles are imported to the active standard.

The content of the text file consists of 21 columns. Five of these must be filled out. These fields are *Designation 1*, *Manufacturer*, *Supplier*, *Category 1* and *Category 2*. The order of the columns is very important and it can not be changed. Even though a column does not have a value, it has to be included.

Field	Content of field	Length
1	Type Designation 1	40
2	Type Designation 2	20
3	Type Designation 3	20
4	Type Designation 4	20
5	Internal article number	40
6	Manufacturers article number	40
7	Manufacturer	40
8	Supplier	40
9	Suppliers article number	40
10	Article Denomination 1	40
11	Article Denomination 2	40
12	Article Denomination 3	40
13	Technical Data 1	80
14	Technical Data 2	80
15	Category 1	20
16	Category 2	20

Field	Content of field	Length
17	Rated Volt	40
18	Dimension 1	40
19	Unit 1	40
20	Dimension 2	40
21	Unit 2	40

You should use the already existing categories. See Appendix A for a list over the existing categories.

If you want to add a terminal or a core to an article when importing, you do this by adding an exclamation point at the beginning of the next row. The terminal/core will be added to the previous article. The terminal/core fields must be in the specified order as shown in the table below.

Field	Content of field	Length
1	Terminal / Core	20
2	Seq. No.	Number
3	Max area	40
4	Max no of conn.	40

Example on an Import file:

```
110V DC;;;E21 111 12;;1;Company 1;;;AUXILIARY
RELAY;;;;;CE;RELAY;;;;;
!A1;;;
!A2;;;
```

This file will create a relay named AUXILIARY RELAY with two terminals A1 and A2. As you can see you don't have to give the Sequence number for the terminal as the program takes the next available.

Kill Project

Access:

- Select **Kill Project** from the **File**-menu.
- Click this button in the toolbar

Description:

When you use this function a dialog will appear where you can select the project that you want to delete from a drop down list. When you click on the **OK** button, you have to give your password. This is just in percussion as **Kill project** is such a powerful function. **Kill Project** will delete everything in that project e.g. apparatuses, drawings and selections.

Limitations:

No drawing files will be deleted.

New Article

Access:

- Select **New Article** from the **File**-menu.
- Click this button in the toolbar
- Shortcut: CTRL-N.

Functional requirements:

The *Articles* window must be active.

Description:

This function will create a new article. If you have an article library active that is different then "*" the article will automatically be added to it.

In the dialog, which appears when you use this function, you must fill out the fields *Article Denomination 1*, *Manufacture* and *Manufacturer Number*. You must also fill out both category fields. You select category from the drop down list.

New Article Library

Access:

- Select **New Article Library** from the **File**-menu.
- Click this button in the toolbar 🗋
- Shortcut: CTRL-N.

Functional requirements:

The *Article library* window must be active.

Description:

This function opens a dialog where you can create a new library.

See also:

- “Add to Library” on page 23.
- “Delete Article Library” on page 26.
- “Edit Article Library” on page 29.

New Directory Synonym

Access:

- Select **New Directory Synonym** from the **File**-menu.
- Click this button in the toolbar 🗋
- Shortcut: CTRL-N.

Functional requirements:

The *Directory synonym* window must be active.

Description:

This function adds a directory synonym. You must give a *Name*, *Disk* and *Directory*. You can also give a Description. It is important that Disk and Directory is given correctly. Disk must be given with a colon, e.g. “C:”. Directory must be given with a back slash in the end e.g. “\project\test\”.

You have the possibility to make Directory Synonyms that follows the UNC, which means that the network mapping does not have to be the same on every client machine, e.g. type disc “\\” and directory DWGSERVER\PROJECT\.

New Report Function

Access:

- Select **New Report Function** from the **File**-menu.
- Click this button in the toolbar 🗋
- Shortcut: CTRL-N.

Functional requirements:

The *Report Functions* window must be active.

Description:

This function adds a new report variant or a complete new report function. In the *New Report* dialog you can create your new report. *Report Function*, *Variant*, *Directory Synonym* and *Report File* must be filled out. If you have a new report file you can make a new variant of that report function. This way you can select report file/variant when you print your report.

New User

Access:

- Select **New User** from the **File**-menu.
- Click this button in the toolbar 🗋
- Shortcut: CTRL-N.

Functional requirements:

The *User* window must be active.

Description:
This function adds a user to the database. You must give a name and a password.

New Variable

Access:

- Select **New Variable** from the **File**-menu.
- Click this button in the toolbar 🗋
- Shortcut: CTRL-N.

Functional requirements:
The *Variables* window must be active.

Description:
This function will add a variable to the selected standard in the *Standard* field at the top of the *Variables* window. In the project drop-down list you can select a project. A variable will be created to the selected project.

When you use this function a dialog will appear in which you can fill out *Variable* and *Value*. The “%”-standard is valid for all standards. If you change a “%”-variable, it will be changed for all standards unless a standard already has a variable with the same name. If a standard already has a variable with the same variable name as the “%”-variable it will use its own variable. See Appendix B for a list over the different variables in the database.

See also:

- Appendix A.

Categories

APPENDIX A

Main categories

Term	Explanation
CA	Cable
CE	Common electric
LA	Logical area
MC	Main component
PA	Physical area
PP	Pipe part

Cable

Category 1	Category 2	Name
CA	CABLE	Cable
CA	LINK	Closing link
CA	OPTO	Optic cable
CA	WIRE	Internal connection

Common Electric

Category 1	Category 2	Name
CE	ACTUATOR	Actuator
CE	AC_DISTRIBUTION	Distribution
CE	ALARM_SYSTEM	Alarm system
CE	AUXILIARY_DEV	Auxiliary devices
CE	BATTERY	Battery
CE	BATT_CHARGER	Battery charger
CE	BATT_SUPERV	Battery supervisor
CE	BREAKER_LV	Breaker
CE	BUSBAR_LV	Bus bar
CE	CHANNEL	Channel
CE	CIRCUIT_BOARD	Circuit board
CE	COIL	Coil
CE	COMMUNICATION_DEV	Communication unit
CE	COMPUTER	Computer
CE	CONNECTOR	Connector
CE	CONN_UNIT	Connection unit
CE	CONTACTOR	Contactor
CE	CONTROLLER	Controller ordinary
CE	CONTROL_SWITCH	Control switch
CE	CONVERTER	General converter
CE	DC_DISTRIBUTION	Distribution
CE	DISCONNECTOR_LV	Disconnector
CE	DISPLAY	Display
CE	EARTH_SWITCH_LV	Earth disconnector switch
CE	ELEMENT	Element
CE	EVENT_SYSTEM	Event System
CE	FAN_UNIT	Fan unit

Category 1	Category 2	Name
CE	FILTER	Filter
CE	FREQ_CONVERTER	Frequency converter
CE	FUSE	Fuse
CE	HEATER_UNIT	Heater
CE	HIGH_VOLT_DEV	High voltage equipment
CE	INDICATOR_LIGHT	Indicator light
CE	INSTRUMENT	Measuring device
CE	INSTR_TRANSF	Measuring transformer
CE	INST_MATERIAL	Installation material
CE	IO_CARD	I/O Card
CE	IO_CHANNEL	Channel
CE	LIGHTING	Lighting
CE	LIMIT_SWITCH	Limit switch
CE	LIMIT_UNIT	Limit unit
CE	LOAD_DISCONN_LV	Switch
CE	MCB	Midget breaker
CE	MCC	MCC
CE	MEASUR_DEV	Metering device, meter
CE	MEMORY_MODULE	Memory module
CE	MISC	Miscellaneous
CE	MMI	User interface
CE	MMI_OPERATING_DEV	Keyboard, mouse
CE	MOTOR	Motor
CE	MOTOR_STARTER	Motor starter
CE	OPERATING_DEV	Operating device
CE	PILOT_SWITCH	Pilot switch
CE	PLUG_CONN	Connector
CE	POSITIONER	Positioner
CE	POWER_SUPPLY	Power supply

Category 1	Category 2	Name
CE	PROCESSOR_MODULE	Processor module
CE	PROTECT_DEV	Protect devices
CE	PUSH_BUTTON	Push button
CE	RECORDER	Printer
CE	REF_SIGNAL	Reference signal
CE	RELAY	Relay
CE	RELAY_PROTECT	Relay protection
CE	RESISTOR	Resistor
CE	SENSOR	Sensor
CE	SIGNAL	Signal
CE	SIGNAL_DEV	Optic/acoustic signalling
CE	SOLENOID_VALVE	Magnetic valve
CE	SWITCHGEAR_LV	Switch gear
CE	TAP_CHANGER_LV	Tap-change gear
CE	TERM_GROUP	Term group
CE	TRANSDUCER	Transducer
CE	TRANSFORMER_LV	Transformer
CE	TRANSFORMER_MEAS	Measuring transformer
CE	TRANSMITTER	Transmitter
CE	TRIP_UNIT	User interface device
CE	UPS	UPS
CE	VOLTAGE_REGULATOR	Voltage regulator

Logical Area

Category 1	Category 2	Name
LA	APP_UNIT	Apparatus unit
LA	DEF_CONN	Default connections
LA	LOGIC_UNIT	Logical unit
LA	NET	Net
LA	NODE	Node
LA	PLANT	Plant
LA	PROCESS	Process
LA	SUB_SYSTEM	Sub system
LA	SYSTEM	System

Main Component

Category 1	Category 2	Name
MC	AIR_TREAT	Air treatment aggregate
MC	BUSBAR	Bus bar
MC	CAPACITOR	Capacitor
MC	CIRCUIT	Circuit
MC	CIRCUIT_BREAKER	Circuit breaker
MC	COMPRESSOR	Compressor
MC	CONTR_VALVE	Control valve
MC	CONVEYOR	Conveyor
MC	DIESEL_UNIT	Diesel-driven generating set
MC	DISCONNECTOR_HV	Disconnector switch high voltage
MC	EARTH_SWITCH_HV	Earth disconnector switch
MC	FAN	Fan

Category 1	**Category 2**	**Name**
MC	FLOW	Flow/Process data
MC	GENERATOR	Generator
MC	HAND_VALVE	Hand valve
MC	HEATER	Heater
MC	HEAT_EXCH	Heat exchanger
MC	LIFT	Lifting equipment
MC	LOAD_DISCONN_HV	Switch high voltage
MC	LOOP	Instrument loop, point of measuring
MC	PR_VESSEL	Pressure vessel
MC	PUMP	Pump
MC	REACTOR	Reactor
MC	SAFETY_VALVE	Safety valve
MC	SUBSTATION	Transformer station
MC	SURGE_ARREST_HV	Surge diverter high voltage
MC	SWG_BAY	Switch gear bay
MC	SWITCHGEAR	Switch gear
MC	TANK	Tank
MC	TAP_CHANGER_HV	Tap changer
MC	TRANSFORMER_HV	Transformer high voltage
MC	TURBINE	Turbine
MC	UNIT	Unit
MC	VALVE	Valve

Physical Area

Category 1	Category 2	Name
PA	BUILDING	Building
PA	ENCLOSURE	Enclosure
PA	ENCLOSURE_GROUP	Enclosure group
PA	ENCLOSURE_SECTION	Enclosure section
PA	FLOOR	Floor
PA	RACK	Rack
PA	ROOM	Room
PA	SECTION	Section of room

Pipe Part

Category 1	Category 2	Name
PP	ELBOW	Elbow
PP	FLANGE	Flange
PP	HANGER	Hanger
PP	PIPE	Straight pipe
PP	REDUCER	Reducer
PP	TEE	Tee

APPENDIX B

Variables

Variables in *el*Master project

Below follows a description of all the variables in *el*Master project database.

Name	**Default value**	**Description**
OBJ_ORDER	KEYA01,KEYA02,KEYA03, KEYA04,KEYA05	Is used internally. Do not change.
DOC_START_REV	A	Start code for revision marking.
DOC_NEXT_REV	B	Next code for revision marking.
CODES_STD	IEC750	Standard for structure handling.
CODES_PREFIXA	=	Prefix for the functional designation.
CODES_PREFIXB	+	Prefix for the location designation.
CODES_PREFIXC	-	Prefix for the production designation
CODES_PREFIXD	#	Prefix for the extra designation.
CODES_SIG_TRANS	B	This variable determinds where signals should be created.
CODES_TRANSA	BC	Is used internally. Do not change
CODES_TRANSB	AC	Is used internally. Do not change
CODES_TRANSC	AB	Is used internally. Do not

Name	Default value	Description
		change
CODES_TRANSD	ABC	Is used internally. Do not change
DEF_CATEGORY1	CE	Is used internally. Do not change.
DEF_CATEGORY2	MISC	Is used internally. Do not change.
CODES_DELIM	.	Separating character between the designation levels. . for dot seperated, +=- for prefix seperated and empty for character seperated.
CODES_SIG_DELIM	;	Separating character for signal designations.
INSTALL_PREFIX	????	The first four letters of the db connect string. Do not change.
CREF_DEFAULT	<PREFIX><DOC>/<SHEET>/<POS<COL><ROW>>	See Appendix C Cross-reference format.
CREF_ED_REF		See Appendix C Cross-reference format.
CREF_ED_SIGSRC		See Appendix C Cross-reference format.
CREF_ED_SIGSINK		See Appendix C Cross-reference format.
CREF_ED_SIG		See Appendix C Cross-reference format.
NLS_DATE_FORMAT	IY-IW	See Appendix D Default date format.
LOG_ACTIVE	FALSE	Is used internally (true/false).
DEF_JOBB_ID	JOB1	Is used internally.
ED_WARNING_DLG	TRUE	If set to true, dialogs for warnings will appear when saving to database. If you run a batch job this should be set to false.
FT_STATUS	FALSE	Determined if connections should be saved to the database.
FT_STD	STD	Is used internally. Do not change.
FT_PRIORD	BAC	Is used internally. Do not change.
DEBUGG	FALSE	Is used internally. Do not change.

Name	**Default value**	**Description**
ED_CREF_TREE	2	0: Cross-ref. between signals 1: As above (0) with cross-ref. between symbols. 2: As above (1) with cross-ref. tree.
FT_CON_CHECK	FALSE	If set to true the program checks max number of connections.
FT_AREA_CHECK	FALSE	If set to true the program checks max area for the terminal.
ELMASTER_FORM	MLUSER;ELMASTER	This will decide which form that should be open in *el*Master design. This is not implemented in *el*Master project.
ED_REFNAMECHECK	FALSE	Flag to check if the signal reference name is the same in a subnet.
FT_SPARE_CORES	10	The value determines the number of spare cores in percent.
FT_MIN_SPARE_CORES	1	The minimum number of spare cores.
FT_SPARE_CHECK	FALSE	Flag to check spare cores when assigning a cable article to a connection.
RENAME_FILE_CHAR	$	This variable determines the character that will be in renamed filenames. Used by copy structure.
CODES_TEST_ORDER	ABCD	The priority order to test designations for an object.
CODES_NULL_STRUCT	BACD	Priority order to specify where the null object should be linked too.

Cross-reference Format

APPENDIX C

Format

The cross-references format in the drawing environment can be configured for different reference symbol types. The different types of symbols used for cross-references are ED_SIG, ED_SEGSRC, ED_SIGSINK and ED_REF.

These are the variables connected to the responding symbols:

- CREF_DEFAULT
- CREF_ED_REF
- CREF_ED_SIG
- CREF_ED_SIGSRC
- CREF_ED_SIGSINK

Mould

The format mould that you want to use must be designed in the following way:

<PREFIX *><DOC>*<SHEET>*<SHEETNOB>*
<DES[1]>*<POS<COL>*<ROW>>

* means that you can put any string here e.g. a slash <DOC[1]>/<SHEET>.

[1] means that DES can be A, B, C or D depending on structure.

You do not have to include all codes in the format string.

Codes

PREFIX
If prefix is used to the cross-reference you must put the PREFIX code first and then put a string after the code.

DOC
Code to display the document number.

SHEET
Code to display sheet number.

SHEETNOB
Code to display sheet number B.

POS
Code that show where the symbol will be positioned on the drawing. It also contains the codes **COL** and **ROW**. These can switch places and they do not have to be included in the **POS** code.

COL
Code to show a certain columns position.

ROW
Code to show a certain rows position.

DES
Code to show common designations.

Default Date Format

APPENDIX D

Format

The default date format will format the output date in both *el*Master design and in *el*Master project. The maximum length of a date format model is 22 characters.

Format elements

A date format model is composed of one or more date format elements as listed in the table. For input format models, format items cannot appear twice and also format items that represent similar information cannot be combined. For example, you cannot use SYYYY and BC in the same format string.

Element	Meaning
-/,.;:"text"	Punctuation and quoted text is reproduced in the result.
AD/A.D.	AD indicator with or without periods.
AM/A.M.	Meridian indicator with or without periods.
PM/P.M.	Meridian indicator with or without periods.
BC/B.C.	BC indicator with or without periods.
CC/SCC	Century; "S" prefixes BC dates with "-".
D	Day of week (1-7).

Element	Meaning
DAY	Name of day, padded with blanks to length of 9 characters.
DD	Day of month (1-31).
DDD	Day of year (1-366).
DY	Abbreviated name of day.
IW	Week of year (1-52 or 1-53) based on the ISO standard.
IYY/IY/I	Last 3, 2, 1 digit(s) of ISO year.
IYYY	4-digit year based on the ISO standard.
HH/HH12	Hour of day (1-12).
HH24	Hour of day (0-23)
J	Julian day; the number of days since January 1, 4712 BC.
MI	Minute (0-59).
MM	Month (01-12; Jan. = 01).
MONTH	Name of month, padded with blanks to length of 9 characters.
MON	Abbreviated name of month.
RM	Roman numeral month (I-XII; Jan. = I).
Q	Quarter of year (1, 2, 3, 4; Jan.- Mar. = 1).
WW	Week of year (1-53) where week 1 starts on the first day of the year and continues to the seventh day of the year.
W	Week of month (1-5) where week 1 starts on the first day of the month and continues to the seventh.
SS	Second (0-59).
SSSSS	Seconds past midnight (0-86399).
Y/YYY	Year with comma in this position.
YEAR/ SYEAR	Year spelled out; “S” prefixes BC dates with “-”.
YYYY/ SYYYY	4-digit year; “S” prefixes BC dates with ”-”.
YYY/YY/Y	Last 3, 2, 1 digit(s) of year.

Date format element suffixes

This table lists suffixes that can be added to date format elements:

Suffix	Meaning	Ex. element	Ex. value
TH	Ordinal number	DDTH	4TH
SP	Spelled number	DDSP	FOUR
SPTH/THSP	Spelled, ordinal number	DDSPTH	FOURTH

Capitalization of date format elements

Capitalization in a spelled-out word, abbreviation, or Roman numeral follows capitalization in the corresponding format element. For example, the date format model DAY produces capitalized words like MONDAY, “Day” produces “Monday” and “day” produces “monday”.

Punctuation and character literals

You can also include these characters in a date format model:

- Punctuation such as hyphens, slashes, commas, periods and colons.
- Character literals.

These characters appear in the return value in the same location as they appear in the format model. Note that character literals must be enclosed in double quotation marks.

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